A new genus and a new species of crab of the family Goneplacidae MacCleay, 1838 (Crustacea: Decapoda: Brachyura) from the tropical western Atlantic

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Abstract.—A new monotypic genus, Nancyplax, and a new species, N. vossi, of the family Goneplacidae MacLeay, are described from the southern Caribbean and northeastern coast of South America. Characters derived from male pleopods 1 and 2, and male abdomen-sternoabdominal cavity, allow Nancyplax to be assigned to the Euryplacinae Stimpson. The carapace in N. vossi, however, strongly resembles in overall conformation some species in the Carcinoplacinae H. Milne Edwards. In addition, N. vossi has a well developed stridulatory organ, a feature shared with only one other euryplacine species, some carcinoplacines, and some species in the Goneplacinae MacLeay. The mosaic habitus of Nancyplax precludes resolution of relationships with other euryplacine genera. Morphological similarities of N. vossi with species of Carcinoplax H. Milne Edwards, Psopheticus Wood-Mason, Psopheticoides Sakai, and Trizocarcinus Rathbun, are summarized.

The family Goneplacidae MacLeay, 1838 currently contains numerous problematic genera with xanthoid affinities that defy phylogenetic arrangement. Guinot (1969a, 1969b, 1969c) proposed a subfamilial arrangement which subsequently has been modified by the removal and addition of subfamilies (Manning & Holthuis 1981, Guinot 1986, Ng & Wang 1994, Hendrickx 1998). As a result, the Goneplacidae is now generally divided by carcinologists into six subfamilies: Carcinoplacinae H. Milne Edwards, 1852, Chasmocarcininae Serène, 1964, Euryplacinae Stimpson, 1871, Goneplacinae MacLeay, 1838, Pseudoziinae Alcock, 1898, and Trogloplacinae Guinot, 1986. Of these six subfamilies, the Carcinoplacinae, Euryplacinae, and Goneplacinae are considered closely related (Guinot 1969a, 1969b, 1969c). The remaining three subfamilies appear to have no close affinities either among themselves or with other subfamilies of Goneplacidae, but should remain in the family until detailed phylogenetic analyses are conducted.

Although in-depth taxonomic reviews have been completed for goneplacid genera such as *Carcinoplax* H. Milne Edwards, 1852 (see Guinot 1989), and *Psopheticus* Wood-Mason, 1892 (see Guinot 1990), the systematic position and relationships of many taxa remain to be fully evaluated. Obstacles to resolving relationships include vague subfamilial definitions and mosaic taxonomic distributions of character states. Furthermore, new forms which often exhibit puzzling combinations of generic-level features continue to be discovered throughout the world oceans.

In the last 25 years a substantial number of new taxa from the Atlantic and Pacific coasts of the American continents have been added to the Goneplacidae (e.g., Gómez & Ortiz 1975, Hernández Aguilera 1982, Guinot 1984, Garth 1986, Hendrickx 1989, 1998; Vázquez-Bader & Gracia 1991, 1995; Tavares 1996). Recent examination of numerous unstudied specimens deposited in the collections of the Rosenstiel School of Marine and Atmospheric Science, University of Miami, and obtained in the 1960s during deep-sea cruises of the R/V Pillsbury to the Atlantic coast of northern South America, revealed the existence of vet another undocumented goneplacid crab of unclear affinities that requires assignment to a new genus and species. Specimens of this same crab were also recently collected in 1995 from the Caribbean coast of Colombia. Herein, a new monotypic genus and new species are described for this goneplacid crab.

Material and Methods

Specimens used were collected in 1968 and 1969 during investigations of the marine fauna of the tropical Atlantic on board the R/V Pillsbury by the then Institute of Marine Sciences, University of Miami, now Rosenstiel School of Marine and Atmospheric Science (RSMAS); and in 1995 during a joint expedition along the Caribbean coast of Colombia on board the research vessel B/I Ancón, conducted by staff from the Colombian Navy's Centro de Investigaciones Oceanográficas e Hidrográficas, Cartagena (CIOH), Instituto de Investigaciones Marinas y Costeras, Santa Marta (INVEMAR), and National Museum of Natural History, Smithsonian Institution,

Washington, DC (USNM). Sampling methods used on the R/V Pillsbury can be found in Voss (1966), and on the B/I Ancón in Lemaitre & Campos (2000). The holotype has been deposited in the USNM, with paratypes in the reference collection of IN-VEMAR, and the Invertebrate Museum of RSMAS (UMML). In general, the descriptive terminology used follows Guinot (1969a, 1969b, 1969c, 1989, 1990). The term "press-button" is used as defined by Guinot & Bouchard (1998) for the abdominal locking mechanism. For the stridulating organ, the terms "pars stridens" and "plectrum" are used in accordance with Guinot-Dumortier & Dumortier (1960) and Guinot (1990). In the "Material examined" section, measurements listed are in millimeters (mm), given in the order: total carapace length (CL) \times carapace width (CW); and abbreviations are as follows: ovig, ovigerous; P, R/V Pillsburv; sta, station.

Nancyplax, new genus

Diagnosis.-Carapace roughly hexagonal in adults, distinctly broader than long; dorsal surface convex, with depression on each side of juncture between gastric and cardiac regions. Branchial region with rounded, low mesial protuberance and prominent, granular metabranchial tubercle. Exorbital angle indistinct, consisting of a low, rounded lobe; anterolateral teeth absent except for epibranchial tooth. Epibranchial (lateral) spine pronounced, sharp. Front straight, gently deflexed, double-margined. Orbits oblique; medial angle of infraorbital margin with well-developed occlusive lobe. Antennules folding transversely. Suture separating subhepatic and pterygostomial regions flanked on pterygostomial region by longitudinal ridge with row of small tubercles. Stridulating mechanism present, well developed.

Lateral margins of buccal frame strongly divergent anteriorly. No endostomial ridges present. Posterior margin of epistome with deep medial notch and 2 incisions on either side extending to anterior margin. Intercalary apophysis between basal antennal article and pterygostomial border well developed and subrectangular in outline. Third maxillipeds not completely covering buccal frame; merus with mesial margin convex, distolateral angle forming rounded lobe, distal margin concave.

Thoracic sternum width between lateral margins of fifth episternites about 1.30 times greater than total length. Sternite 1 separated from sternite 2 by indistinct sulcus. Anterior border of sternite 3 much wider than posterior margin of sternite 2. Sternites 3 and 4 demarcated by shallow remnants of sulcus confined to lateral regions. Sulci separating sternites 4 and 5, 5 and 6, and 6 and 7, interrupted medially. Sulcus delimiting sternites 7 and 8 complete. Median septum of endosternite 8 externally visible as median, longitudinal sulcus. Press-button knobs on fifth sternite distinct, adjacent to sternite 4. Episternites 4 through 7 developed and broadly lobate posteriorly. Sternoabdominal cavity deep, triangular in outline. Episternite 7 covering small portion of male seminal duct aperture on coxa of pereopod 5 and part of short seminal groove on sternite 8.

Abdomen in both sexes with second segment leaving small portion of episternite 8 visible. Male abdomen triangular in overall outline, with 6 free articulating segments and telson; third segment overlapping part of coxae of fifth pereopods and completely covering gonopores located at base of coxae; telson triangular, with distal margin rounded.

Male with pleopod 1 sinuous, much broader at base than at apex, tapering to very slender tip, spinose; euryplacine in organization (cf. Guinot 1969b). Pleopod 2 short; apical lobe reduced and separated from subterminal segment by incomplete fissure.

Type species.—Nancyplax vossi, new species, by present designation.

Gender.-Feminine.

Etymology.—The name of the genus is in

honor of Mrs. Nancy Voss, Research Professor at the Rosenstiel School of Marine and Atmospheric Science, University of Miami. The genus name is formed by combining her first name with the Greek suffix *plax*, meaning flat (although morphologically inappropriate here for the only species in the genus) and commonly used in naming genera of the Goneplacidae. Mrs. N. Voss has for many years vigorously promoted the study of the invaluable tropical deep-sea collections housed in her institution.

Remarks.—Nancyplax, new genus, can be placed in the Euryplacinae with relative confidence. This placement is based first on the structure of male pleopods 1 and 2. Unlike the pleopods 1 seen in the Carcinoplacinae and Goneplacinae, euryplacine pleopods 1 are somewhat broad at the base, almost uniformly tapering to a very slender apex with patches of distinct spines on the surface (Guinot 1969b). This particular pleopod 1 morphology is probably a defining characteristic of the Euryplacinae. In contrast, pleopods 1 of carcinoplacines and goneplacines are considerably stouter along the distal half of the terminal segment, and the apex may or may not possess one or more distal lobes (Guinot 1969b, 1989, 1990). Second, pleopod 2 is short in Nancyplax with a rudimentary apical lobe as it is in all other euryplacine taxa (Guinot 1969b); carcinoplacines and goneplacines both have long second pleopods with well defined flagella, and a specific apical conformation (Guinot 1969b, 1989, 1990). Third, Nancyplax exhibits a male abdomen outline and sternoabdominal cavity organization that is very close to those seen in euryplacines such as species of Trizocarcinus Rathbun, 1914, e.g., T. dentatus (Rathbun, 1893). These characters permit Nancyplax to be excluded from either the Carcinoplacinae or Goneplacinae.

The carapace in the single species of *Nancyplax* is nevertheless unlike that of any other euryplacine. In terms of overall shape the carapace strongly resembles those seen

in some species of Psopheticus and Carcinoplax, especially C. longispinosa Chen, 1984. However, Psopheticus species have in common with Nancyplax vossi the presence of a stridulatory organ (Guinot-Dumortier & Dumortier 1960, Guinot 1990), whereas this organ is absent from members of Carcinoplax. Within the Euryplacinae, Trizocarcinus dentatus also has a well developed stridulatory organ, and the pterygostomial ridges are identical in form to those of the single species of Nancyplax, although the two species have different carapace outlines. Species of the goneplacine Ommatocarcinus White, 1852 and the carcinoplacine Bathyplax A, Milne-Edwards, 1880, likewise possess a Nancyplax-like stridulatory organ, but here again carapace morphology is not equivalent among the three genera. Given the patchy taxonomic distribution of the stridulatory organ in goneplacids, and the disparate carapace shapes observed in some genera such as Carcinoplax (see Guinot 1989), it would appear that characters from the carapace cannot be used to argue against placing Nancyplax in the Euryplacinae.

The morphology of Nancyplax exemplifies many of the problems inherent in goneplacid systematics. To partially reiterate, this new genus can be said to have a mosaic habitus. The male pleopods, male abdomen outline, and sternoabdominal cavity conformation are euryplacine. The shapes of the male telson and third maxilliped merus are very close to those in Trizocarcinus dentatus. Nancyplax has the same type of stridulatory organ as seen in T. dentatus and some carcinoplacines. Nancyplax and Carcinoplax longispinosa have almost equivalent carapace anatomies except for the stridulatory ridges. The lack of defined grooves on episternite 8 for the seminal ducts suggests that Nancyplax is not as derived as many other carcinoplacines, euryplacines, and goneplacines (Guinot 1969b). For these reasons, it is unclear whether Nancyplax is a basal euryplacine or alternatively, a highly modified taxon.

Nancyplax vossi, new species Figs. 1-5

Material examined.—Holotype: δ 10.7 × 15.7 mm, off Venezuela, sta P-752, 11°06.3'N, 68°14.6'W, 95–132 m, 26 July 1968, USNM 308995.

Paratypes: 1 δ 13.9 \times 20.2 mm, USNM 308996; 2 ovig 9 8.6 × 12.7 mm, 10.6 × 15.2 mm, UMML 32.8776; off Venezuela, sta P-752, 11°06.3'N, 68°14.6'W, 95-132 m, 26 Jul 1968.—2 ♂ 4.5 × 5.8 mm, 14.3 × 20.1 mm, USNM 308993; 1 & 13.0 × 19.4 mm, INVEMAR-CRU 2926; SW Isla Rosario, Islas del Rosario, Colombia, "Expedición CIOH-INVEMAR-Smithsonian", sta T18, 10°11.97"N, 75°53.41'W, 150-155 m, 7 Aug 1995.—2 & 7.9 × 11.7 mm, 9.2 × 13.4 mm, off SE coast of Trinidad, sta P-837, 10°09.8'N, 60°34.3'W, 55 m, 30 Jun 1969, UMML 32.9079.—4 ♂ 6.0 × 7.6 mm, 7.5×10.4 mm, 7.8×10.7 mm, 8.5 \times 12.1 mm, 1 $\stackrel{\circ}{\circ}$ 6.0 \times 8.0 mm, off SE coast of Trinidad, sta P-836, 9°56.5'N, 60°46"W, 57-59 m, 30 Jun 1969, UMML 32.9078.—1 ♂ 12.1 × 17.2 mm, 1 ♀ 11.9 × 17.5 mm, USNM 308994; 1 & 11.0 × 15.7 mm, 2 9 10.7 × 16.0 mm, 11.3 × 16.0 mm, UMML 32.8775; off Surinam, sta P-671, 7°07'N, 55°08'W, 64 m, 11 Jul 1968.

Diagnosis.—Carapace about 0.65 to 0.75 as long as broad, smooth, glabrous; regions weakly demarcated. Front straight, at most about 0.40 as long as CW; frontal lobes divided by weak median cleft. Anterolateral margins with strong epibranchial (lateral) spine. Pterygostomian region with well developed stridulating ridge. Male chelae glabrous; female chelae with dense fringe of setae on dorsal and ventral margins. Dactyls of pereopods 2–5 each with 3 longitudinal fringes of setae dorsally and 1 fringe ventrally. Male pleopod 1 very slender distally, with medial shoulder densely spinose, and minute well-spaced spines on distal third.

Description.—Carapace (Figs. 1, 3a) subhexagonal, about 0.65 to 0.75 as long as broad; dorsal surface convex, superficially smooth and glabrous, microscopically with



Fig. 1. Nancyplax vossi, new species, paratype male 14.3×20.1 mm, SW of Isla Rosario, Islas del Rosario, Colombia, sta T18, USNM 308993: dorsal view.

numerous punctae medially on gastric, cardiac and intestinal regions, and numerous minute granules on hepatic and branchial regions. Regions indistinctly demarcated; gastric and hepatic regions evenly convex; with distinct depression on each side of juncture between gastric and cardiac regions; branchial regions each with low, rounded protuberance medially, and distinct, granular metabranchial tubercle. Front (Figs. 2a, 3b) straight, about 0.30 (adults) to 0.40 (young) times as long as CW; separated on each side from preorbital lobe by small notch; with double margin consisting of lower and upper, pseudofrontal margins, lower margin extending slightly beyond pseudofrontal; pseudofrontal margins divided into lobes by weak medial cleft (weaker on lower margin); lateral, inferior lobe produced and extending ventrally to third antennal segment near articulation between the second and third segments. Anterolateral margins broadly rounded, lacking any indication of teeth or spines except for prominent, strong epibranchial (lateral) corneous-tipped spine directed slightly forward in dorsal view and slightly upward in frontal view (Figs. 1, 2a). Epibranchial (lateral) spine in adults nearly as long as orbital length. Posterolateral and posterior margins broadly rounded. Subhepatic region minutely granulose. Pterygostomian region (Fig. 2a) smooth, with well developed, raised stridulating ridge (pars stridens) with numerous transverse striae bordering suture between pterygostomian and subhepatic re-



Fig. 2. Nancyplax vossi, new species, a, c, male 13.9×20.2 mm, sta P-752, off Venezuela, USNM 308996; b, male 14.3×20.1 mm, SW of Isla Rosario, Islas del Rosario, Colombia, sta T18, USNM 308993. a, carapace and cephalic appendages, including basal segments and part of merus of left cheliped, frontal view; b, abdominal segments 1 to 3, coxae 4 and 5, and episternite 7, and visible part of episternite 8, ventral view; c, sternites 7 and 8, episternites 6 and 7, coxae 4 and 5, left side (abdomen removed), ventral view. Abbreviations: a1-3, abdominal segments I-3; c, posterior margin of carapace; cx4,5, coxae of percopods 4 and 5; ep6-8, episternites 6 to 8; g, gonopore; ol, occlusive lobe; pl, plectrum; ps, par stridens; s7,8, sternites 7 and 8. Solid black indicates membranes. Scales equals 2 mm (a, b), and I mm (c).

gions. Ventral, pterygostomial border of carapace flanking coxae of pereopods 1 concave, lined with setae on inner margin.

Orbits (Figs. 2a, 3a, b), about 0.50 (adults) to 0.60 (young) as long as front, margins minutely granulose, with small, blunt pre and postorbital lobes; supraorbital margin with 2 short sutures and fringe of well-spaced setae; infraorbital margin exposed in dorsal view, with short suture just below postorbital lobe and subrectangular occlusive lobe. Eyestalks short, completely fitting in orbits when retracted; corneae slightly dilated; peduncles sparsely setose.

Antennules folding transversely into deep fossae, segments similar in length;

basal segment considerably inflated and occupying nearly entire antennular fossae, penultimate and ultimate segments slender. Antennae with first segment immovable, short, semicircular and enclosing urinary opening; second to fourth segments movable, longer than broad; flagellum overreaching antennules when fully extended.

Third maxillipeds (Fig. 3c) with bases separated by triangular tip of thoracic sternum. Ischium longer than broad; outer surface with median longitudinal furrow; mesial margin with row of teeth and fringe of setae. Merus about as long as broad; distolateral angle produced into lobe with minutely granular outer surface and marginal



Fig. 3. Nancyplax vossi, new species. a, young male 4.5×5.8 mm, SW of Isla Rosario, Islas del Rosario, Colombia, sta T18, USNM 308993; b, d, f, male 13.9×20.2 mm, sta P-752, off Venezuela, USNM 308996; c, male 14.3×20.1 mm, sta T18, USNM 308993; e, female 9.5×13.4 mm, sta T18, USNM 308993. a, carapace, eyes and antennae, dorsal view; b, frontal region, eyes and antennae, dorsal view; c, third right maxilliped, outer view; d, left and right chelae male, outer view; e, left and right chelae of female, outer view; f, merus and carpus of right cheliped, dorsal view. Abbreviation: pl, plectrum. Scales equal 1 mm (a–c, e, f), and 2 mm (d).

setae; outer mesial surface minutely granular, setose. Palp about as long as ischium, marginally setose. Exopod with basal segment reaching to tip of distolateral angle of merus; mesial surface minutely granulose.

Chelipeds sexually dimorphic. Male chelae (Fig. 3d) slightly unequal in size right from left, mostly glabrous. Dactyl about as long as palm. Fingers not leaving gap when closed, each terminating in inwardly curved corneous claw; outer surface minutely punctate; cutting edges consisting of row of small sharp or blunt calcareous teeth interspersed with larger calcareous teeth. Palm glabrous; dorsal margin broadly curved, ventral margin nearly straight. Carpus (Fig. 3f) with outer surface sparsely granulose, setose; inner margin armed proximally with strong spine curving inward distally and terminating in corneous tip. Merus (Fig. 3f) granulose except on dorsal face and plectrum; with sparse row of setae on dorsomesial margin; inner, proximal margin with stridulating ridge (plectrum).

Female chelipeds subequal, differing from those of male as follows: chelae (Fig. 3e) densely setose on dorsal and ventral margins; dactyl about 1.40 times as long as palm; fixed fingers and palm with dorsal and ventral surfaces granulose; carpus with outer face densely setose.

Pereopods 2-5 (Fig. 4) slender; segments with lateral and mesial faces glabrous. Pereopods 2-4 subequal in length, about 1.60 times as long as CW; with granules on ventral surfaces of meri. Pereopod 5 shortest, about 1.30 times as long as CW, lacking granules on ventral surface of merus. Dactyl slightly longer than propodus, terminating in short corneous claw; with 3 dense fringes of setae dorsally, and 1 fringe ventrally. Propodus with dense fringe of setae dorsally and ventrally. Carpi of pereopods 2-4 each with granules and dense fringe of setae on dorsal surface; carpus of pereopod 5 lacking granules, with fringe of setae dorsally. Meri with sparse fringe of setae dorsally.

Thoracic sternum (Fig. 5a) and abdomen with surfaces punctate. Male abdomen (Fig. 2b, 5b) with short setae marginally on segments 1–6 and telson. First segment short, narrow. Second segment twice as long as first. First and second segments not reaching coxae of pereopods 5. Third segment broadest, overlapping part of coxae of fifth pereopods. Fourth and fifth segments subequal in length. Sixth segment subequal to telson in length. Telson bluntly triangular.

Male pleopod 1 (Fig. 5c, d) reaching beyond suture separating sternites 4 and 5 when in situ; medial shoulder with dense cluster of spines on ventrolateral face, spines diminishing in number, size and sharpness distally; distal third with minute, broad-based and often blunt spines. Pleopod 2 (Fig. 5e, f) slightly curved inwardly, terminating in subtriangular tip with about 3 short stiff setae basally on inner angle. Gonopores (Fig. 2c) located proximally on coxae.

Female abdomen with first and second segments as in male, leaving small portion of sternite 8 visible on each side. Gonopores large, transversely ovate.

Color.—Unknown.

Etymology.—This species is named in recognition of Mrs. Nancy Voss' late husband, Dr. Gilbert L. Voss, RSMAS, who was Chief Scientist on many of the cruises of the R/V *Pillsbury*. He was also instrumental in making possible the most intense and successful deep-sea sampling program ever conducted in the tropical Atlantic Ocean. The immense number of specimens obtained during that program continue to be studied, and have considerably enriched our knowledge of the fauna from this region of the world.

Distribution.—Caribbean Sea, off Colombia and Venezuela; Lesser Antilles, off southeast coast of Trinidad; and northeastern coast of South America, off Surinam. Depth: 55 to 155 m.

Similarities.-Given the morphological complexities and frequent overlap of characters among goneplacid taxa, it is useful to point out similarities observed between Nancyplax vossi, new species, and species of other genera in the family. The carapace of N. vossi superficially resembles those of Carcinoplax species, notably C. barnardi Capart, 1951 and C. longispinosa Chen, 1984. Also, the dense setation of the carpus-propodus-dactyl of N. vossi (Fig. 4) is similar to that seen in C. angusta Rathbun, 1914 (cf. Guinot 1989: 310, fig. 39B). However, N. vossi differs from all Carcinoplax species in that the latter lack a stridulatory organ. In addition, the morphology of the male pleopods 1 and 2 is quite different in N. vossi and Carcinoplax species.



Fig. 4. *Nancyplax vossi*, new species, male 13.9×20.2 mm, sta P-752, off Venezuela, USNM 308996. a-d, second to fifth right percopods, lateral view: a, second; b, third; c, fourth; d, fifth. Scale equals 3 mm.



Fig. 5. Nancyplax vossi, new species, male 13.9×20.2 mm, sta P-752, off Venezuela, USNM 308996. a, coxae, sternum with abdomen removed leaving right first pleopod. Abbreviations: c, posterior margin of carapace; cx1-5, coxae of pereopods 1–5; ep4-7, episternites 4 to 7; pl 1, pleopod 1; sl-8, sternites 1–8. Solid black indicates membranes. Scales equal 1 mm (a, b), 0.25 mm (c, e), and 0.1 mm (d, f).

In the new species, pleopod 1 is very slender distally, and pleopod 2 is short and stubby (Fig. 5c–f), whereas in *Carcinoplax* species pleopod 1 is quite thick distally, and pleopod 2 is long and thin (cf. Guinot 1989).

Psopheticus species have a stridulatory organ very similar to that of *N. vossi*, but otherwise differ markedly. The carapace of *N. vossi* has a long lateral spine (Fig. 1, 2a), whereas in *Psopheticus* species the lateral spine is short (cf. Guinot 1990). Pereopods 2 to 5 in *N. vossi* have the meri unarmed, and the carpi-propodi-dactyls are densely setose (Fig. 4), whereas these pereopods are armed with spines and lack dense setation in *Psopheticus* species (cf. Guinot 1990). In addition, male pleopods 1 and 2 in *N. vossi* and *Psopheticus* species differ significantly in morphology.

The male pleopods 1 and 2, abdomen, and sternoabdominal structure of *Nancy*-

plax vossi (Fig. 5c-f) are very similar to those of *Trizocarcinus dentatus* (Rathbun, 1893) and *T. tacitus* Chace, 1940 (cf. Guinot 1969b: 516, figs. 48–51). Male pleopods 1 and 2 of *N. vossi* also resemble those of *Psopheticoides sanguineus* Sakai, 1969, the only representative of the genus *Psopheticoides* Sakai, 1969. However, *N. vossi* differs substantially from these species in carapace shape, and armature and proportions of pereopods.

A variety of stridulatory organs have been described in the Brachyura (Guinot, Dumortier & Dumortier 1960, 1961; Guinot 1990). The stridulating organ in *Nancyplax vossi* appears to be of the simple kind (cf. Guinot 1990) in which the striate plectrum on the merus of the cheliped is rubbed against the striate pars stridens on the pterigostomial region.

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